

# (19)The Korean Intellectual Property Office (KR) Registered Utility Model (Y1)

(51) Int.Cl. 6

A23L 1/337

Examined Publication Date	2002-02-21
Registration No	20-0265539
Registration Date	2002-02-07
Application No	20-2001-0036653
Application Date	2001-11-28
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Title of Device	seaweeds roasted device



## Abstract

The invention relates to the seaweed broiling apparatus. And with the temperature controller (16): which controls the temperature of the roasting vessel (4) it electrically is connected to and installed at the coating plate (5) of the rotary lever (24): in which the center area is hinge-coupled in the case (1) and power line and heater (7) and roasting vessel (4) it is equipped in the agitating vane (15): which mixes the salted dry fish within the roasting vessel (4) in the rotation of the driving shaft (11) is rotated according to the inner circumference of the roasting vessel (4) it is connected to and installed at the driving means (10): which is made of a plurality of parts is the driving shaft (11) installed at the roasting vessel (4):, consisting of the installed case (1), the coating plate (5), and the cover (6) the heater (7):, the motor (12) delivering the power to the driving shaft (11), and the chain (13) the caster (2) is equipped in the bottom surface and driving shaft (11) and case (1) inner one-side and the lacing plate (22) which is united and possessed in the driving shaft (11) one end and is at the same time rotated As to the, vent is equipped in center while it is equipped in the case (1) center of inside and the cross section has U shape. The cover (6) is installed in order to open and close this in the vent (9) of the coating plate (5). A plurality of parts is the driving shaft (11) installed at the roasting vessel (4):, consisting of the installed case (1), the coating plate (5), and the cover (6) the heater (7): is adherently equipped in the coating plate (5) external periphery of the roasting vessel (4) and heats up this and upper center of the roasting vessel (4). The chain (13) is connected to and installed at the driving shaft (11) and motor (12) and delivers the rotation power of the motor (12) to the driving shaft (11). It was combined in order to be rotated in the rotary lever (24) one side. When being rotated over the constant angle, the seaweed broiling apparatus consisting of the actuating piece (27), the solenoid switch (29), the timer (18), the interlocking lever (32), and the enclosing vessel (20) was included. As to the, one side is advanced within the rotary range of the lacing plate (22). The solenoid switch (29) is connected to and installed at the actuating piece (27) with the wire (28) in order to circulate the actuating piece (27). The timer (18) permits the power in the solenoid switch (29) if the time which is connected to and installed at the power line and solenoid switch (29) and is set goes by. As to the, one end is hinge-coupled so that one end be rotatable, and the bottom of the rotary lever (24) is connected to the other side, and one end of the cover (6) is combined in the hinge part lateral edge. The enclosing vessel (20) is equipped in the vent (9) bottom side of the roasting vessel (4) and receives the salted dry fish dropped down earlier than at the roasting vessel (4) when the cover (6) is opened by the circulation of the interlocking lever (32).

Therefore, if the power was permitted in the motor (12) and heater (7) after setting the predetermined time and constant temperature in the timer (18) and temperature controller (16), while the agitating vane (15) was rotated, the salted dry fish within the roasting vessel (4) was continuously mixed. At this time, the fixed temperature the roasting vessel (4) was maintained by the temperature controller (16). And while the cover (6) of the roasting vessel (4) was opened in the timer (18) if the set time went by, the salted dry fish within the roasting vessel (4) was put in the enclosing vessel (20). Therefore, as the salted dry fish parched in the fixed temperature with for hour, the salted dry fish got or the problem of less parching was solved and it always could pester due to the superior state. In addition, the salted dry fish could be automatically parched and the fatigue of operator and labor cost saving was reduced.



#### Representative Drawing(s)

Fig. 1



#### Keyword(s)

The case, the roasting vessel, cover, heater, driving means, motor, the agitating vane, temperature controller, timer, the enclosing vessel, rotary lever, actuating piece, solenoid switch, interlocking lever.



#### Description

#### ■ Brief Explanation of the Drawing(s)

Figure 1 is an appearance perspective view showing the invention seaweed broiling apparatus

Figure 2 is a coarse profile showing one side inside of the invention seaweed broiling apparatus

Figure 3 is a coarse profile showing the other side inside of the invention seaweed broiling apparatus

Figs. 4 and 5 is the recess enlarged perspective view.

Figs. 6 and 7 are side views the rotary lever being operated and cover being the open state exhibited

Figs. 8 through 10 are coarse elevations showing another preferred embodiment of the agitating vane among the invention seaweed broiling apparatus

The description \* of the symbol about the main part of \* drawing.

1 : case 4 : roasting vessel.

6 : cover 7 : heater.

10 : driving means 12 : motor.

15,35,45,55 : agitating vane 16 : temperature controller.

18 : timer 20 : enclosing vessel.

24 : rotary lever 27 : actuating piece.

29 : solenoid switch 32 : interlocking lever.

#### ※ Details of the Device

##### ※ Purpose of the Device

##### ※ The Technical Field to which the Device belongs and the Prior Art in that Field

The invention relates to the Macroalgae roaster. And particularly, it is about the Macroalgae roaster which automatically can parch Macroalgae.

Useful nutrient for the Macroalgae (hereinafter it calls because of being " salted dry fish ".) mixing laver and green laver is the human body are food having the remarkable effect that is included with large amount and makes the Zingiberis Rhizoma promoted but. And therefore it is above anything else important to cook such salted dry fish according to the gummy of consumer and supply.

Conventionally, until it was regarded because cook was appropriate after if wanted to parch the salted dry fish, laver and green laver being put into skillet etc. and thus mixing the cooking oil, sesame, the salt etc., it parched and it cooked.

Therefore, whenever the salted dry fish was parched since the cooking course of parching of the salted dry fish was made with the eye measure or the sensation of cook, it was unable to heat with fixed for hour and the exact temperature. And the problem that the taste of the accordingly cooked salted dry fish was occasionally changed was generated. The problem of often so pestering the salted dry fish due to the strong fire for a long time and getting on was generated. And since it less parched on the contrary and it had the fishy smell, the problem of the etc. in which the products value was degraded was generated.

##### ※ The Technical Challenges of the Device

The above-described problem is resolved. And an object of the present invention is to provide the seaweed broiling apparatus which automatically pesters the salted dry fish due to set for hour, and the set temperature.

In order to be united and possessed in the driving means consisting of the chain where the caster is equipped in the bottom surface and where a plurality of parts is connected and installed as to the apparatus for parching the salted dry fish consisting of laver and green laver in driving shaft installed at the roasting vessel; consisting of the installed case, the coating plate, and the cover the heater which is equipped in the coating plate external periphery of the roasting vessel and heats up this and upper center of the roasting vessel, and the motor, delivering the power to the driving shaft and driving shaft and motor and delivering the rotation power of the motor to the driving shaft and the agitating vane: which is connected to and installed at the driving shaft and mixes the salted dry fish within the roasting vessel in the rotation of the driving shaft while being rotated according to the inner circumference of the roasting vessel and the rotary lever which is equipped in the case inner one-side and in which the center area is hinge-coupled in the case and the temperature controller which electrically is connected to and installed at the power line, heater and coating plate of the roasting vessel and controls the temperature of the roasting vessel and one edge of driving shaft and it is rotated in the at the same

time rotated lacing plate and rotary lever one side it is combined. As to the, vent is equipped in center while it is equipped in the case center of inside and the cross section has U shape. The cover is installed in order to open and close this in the vent of the coating plate. When being rotated over the constant angle, it characterizes to be made of the actuating piece, the solenoid switch, the timer, the interlocking lever, and the enclosing vessel. As to the, one side is advanced within the rotary range of the lacing plate. The solenoid switch is connected to and installed at the actuating piece with the wire in order to circulate the actuating piece. The timer permits the power in the solenoid switch if the time which is connected to and installed at the power line and solenoid switch and is set goes by. As to the, one end is hinge-coupled so that one end be rotatable, and the bottom of the rotary lever is connected to the other side, and one end of cover is combined in the hinge part lateral edge. The enclosing vessel is equipped in the discharge bottom of the roasting vessel and receives the salted dry fish dropped down earlier than at the roasting vessel when cover is opened with the circulation of the interlocking lever.

Therefore, there can be the effect of the etc. which can parch, and In addition, it automatically can parch the salted dry fish and can reduce the fatigue of operator and labor cost saving as the superior state if the power is permitted in the motor and heater after setting the predetermined time and constant temperature in timer and temperature controller, while the agitating vane is rotated, the salted dry fish within the roasting vessel is continuously mixed, and at this time, the fixed temperature the roasting vessel is maintained by the temperature controller, and while the cover of the roasting vessel is automatically opened in timer if the set time goes by, the enclosing vessel keeps the salted dry fish within the roasting vessel.

#### ■ Structure & Operation of the Device

The concrete characteristic of the present invention and advantage are more clear to the description of less than referring to the attached drawing.

Figure 1 is a perspective view showing the invention seaweed broiling apparatus. Figure 2 is a side view showing the inner one-side of fig. 1. Fig. 3 as to this, the caster (2) is equipped as the side view showing the inside other side in the bottom surface and the case (1) in which a plurality of parts is installed is equipped.

This case (1) center of inside, the roasting vessel (4) is equipped. And this is made of the coating plate (5), and the cover (6) while the cross section has U shape. And it is connected to the hinge part of the interlocking lever (32) describing later and it is opened and closed in the cover (6) with the circulation of the interlocking lever (32). As to the, the vent (9) is equipped in center. The cover (6) is installed in order to open and close this in the vent (9) of this coating plate (5).

In the roasting vessel (4) lower perimeter, it becomes the heater (7) connected to the power line with the multitude arrangement possession and this is intensified. And it is incurred with the adiabatic material (8) in the heater circumference.

And the upper center of the roasting vessel (4), it is installed so that the driving shaft (11) be rotatable. The other parts of the driving means (10) is connected and installed in this driving shaft (11). The driving means (10) the motor (12) delivering the power to the driving shaft (11) besides the driving shaft (11) is equipped. And it is made of the chain (13) which is connected to and installed at the driving shaft (11) and motor (12) and delivers the rotation power of the motor (12) to the driving shaft (11).

Moreover, the driving shaft (11) one end, the agitating vane (15) which mixes the salted dry fish within the roasting vessel (4) in the rotation of the driving shaft (11) while being rotated according to the inner circumference of the roasting vessel (4) is installed.

In the meantime, the case (1) inner one-side, the rotary lever (24) is installed. It is hinge-coupled in the case (1) with the first pivot axis (25) and the center area is automatically circulated with the connection action with the other parts.

The case (1) front one side, the temperature controller (16) which electrically is connected to and installed at the power line, the heater (7) and coating plate (5) of the roasting vessel (4) and controls the temperature of the roasting vessel (4) is installed. If the time when the temperature controller (16) one side is connected and installed with the power line in the solenoid switch (29) describing later and which is set goes by, the timer (18) permitting the power is installed in the solenoid switch (29). And the respective first switch (17) and the second switch (19) are installed in order to switch off these. These come.

In the meantime, the driving shaft (11) one end, the lacing plate (22) is equipped at the same time in order to be rotated. The actuating piece (27) is hinge-coupled so that one side be advanced within the rotary range of the lacing plate (22) when the rotary lever one side being rotated over the constant angle. And if since the solenoid switch (29) is connected to and installed at the actuating piece (27) in this actuating piece (27) with the wire (28) and the set time of the timer (18) passes, the solenoid switch (29) being operated and pulling the wire (28), the thus connected actuating piece (27) is rotated.

And the roasting vessel (4) down side, the corresponding end part of the interlocking lever (32) is hinge-coupled with the second pivot axis (33). The bottom of the rotary lever (24) the other side of the interlocking lever (32) is connected. And when one end of the cover (6) is combined in the hinge part lateral edge and the interlocking lever (32) is rotated, the cover (6) opens and closes the vent (9) of the roasting vessel (4).

Moreover, the vent (9) bottom side of the roasting vessel (4), in order to receive the salted dry fish dropped down earlier than at the roasting vessel (4) when the cover (6) is opened by the circulation of the interlocking lever (32) the enclosing vessel (20) is equipped.

Here, the non-described code 26 is the first spring in which the rotary lever (24) is flexibly circulated. And 30 is the second spring restoring the actuating piece (27) circulated with the solenoid switch (29).

The invention seaweed broiling apparatus with this configuration is operated like next.

Salted dry fish (the Macroalgae mixing laver and green laver to the rate of 7 : 3 or 8 : 2) are put into the roasting vessel (4) and the cooking oil or the sesame oil, sesame, the salt etc. are thus put. The temperature controller (16) is faked and it sets to 210–220°C. The timer (18) is manipulated and it sets to about 6–7 minutes.

And the power is permitted in the motor (12) and heater (7) and it runs. The coating plate (5) of the roasting vessel (4) which thus adheres closely is intensified while the heater (7) is heated.

In the meantime, the driving shaft (11) is rotated while the chain (13) is rotated in the drive of the motor (12). While the agitating vane (15) which accordingly is connected to the driving shaft (11) is rotated, the salted dry fish within the roasting vessel (4) is evenly mixed.

Here, there the problem the fixed temperature overheats since being heated by the temperature controller (16) as the fixed temperature and that the salted dry fish gets or the temperature of the roasting vessel (4) is low and that the salted dry fish properly parches is no roasting vessel (4).

In the meantime, if the set time passes in the timer (18), the thus connected solenoid switch (29) senses this and it is operated. And the actuating piece (27) is as shown in Figure 5 rotated accordingly while the wire (28) is smoothed out.

In this way, when the lacing plate (22) is rotated since a part of the actuating piece (27) is advanced within the rotary range of the lacing plate (22) if the actuating piece (27) is rotated, one side of the actuating piece (27) hangs at the one side. And as shown in Figure 6, the rotary lever (24) is rotated around the first pivot axis (25) as the lacing plate (22) is continuously rotated.

In this way, as the rotary lever (24) is rotated with the lacing plate (22) and actuating piece (27), the thus connected interlocking lever (32) is connected. And the interlocking lever (32) is circulated around the second pivot axis (33) when the bottom of the rotary lever (24) is rotated to the arrow direction. And while the cover (6) which accordingly is connected to and installed at the interlocking lever (32) is as shown in figs. 6 and 7 rotated, the bottom is opened.

Therefore, the cover (6) is opened and it is the bottom side dropped down earlier than the salted dry fish of the roasting vessel (4) inside through the vent (9). And it is accepted in the enclosing vessel (20) of the vent (9) lower part.

Therefore, since being automatically transported to the enclosing vessel (20) after parching with for hour, is set with the timer (18), and the solenoid switch (29) and an plurality of parts installed by linkage with this there the concern in which the salted dry fish gets is no invention roasting apparatus.

If the invention seaweed broiling apparatus sets the superior temperature in the temperature controller (16) to parch the salted dry fish and it sets in the timer (18) as the proper time, the problem the salted dry fish less parches since the salted dry fish is put in the enclosing vessel (20) after pestering due to the superior state or of getting on is solved.

The figs. 8 through 10 comprise as shown in Figure 10, the agitating vane (55) of waveform as shown in Figure 10,  $\nabla$  shape of a character agitating vane (45) can be included as shown in Figure 10, the agitating vane (15) can be formed with the linear type among the invention seaweed broiling apparatus as front views showing another preferred embodiment of the agitating vane, and however, as shown in Figure 10, the agitating vane (35) can be formed with spatulate.

#### ■ Effects of the Device

In the above, there can be the effect of the etc. which can parch, and In addition, it automatically can parch the salted dry fish and can reduce the fatigue of operator and labor cost saving as the superior state if the power is permitted according to the same seaweed broiling apparatus according to the invention in the motor (12) and heater (7) after setting the predetermined time and constant temperature in the timer (18) and temperature controller (16), while the agitating vane (15) is rotated, the salted dry fish within the roasting vessel (4) is continuously mixed, and at this time, the fixed temperature the roasting vessel (4) is maintained by the temperature controller (16), and while the cover (6) of the roasting vessel (4) is opened in the timer (18) if the set time goes by, the salted dry fish within the roasting vessel (4) is put in the enclosing vessel (20).



#### Scope of Claims

##### Claim 1 :

As to the apparatus for parching the salted dry fish consisting of laver and green laver. In order to be united and possessed in the temperature controller (16): which electrically is connected to and installed at the coating plate (5) of the agitating vane (15): which is connected to and installed at the driving means (10): in which the caster (2) is equipped in the bottom surface and which is made of a plurality of parts is driving shaft (11) installed at the roasting vessel (4):, consisting of the installed case (1), the coating plate (5), and the cover (6) the heater (7):, the motor (12) delivering the power to the driving shaft (11), and the chain (13) and driving shaft (11) and mixes the salted dry fish within the roasting vessel (4) in the rotation of the driving shaft (11) while being rotated according to the inner circumference of the roasting vessel (4) and the rotary lever (24): which is equipped in the case (1) inner one-side and in which the center area is hinge-coupled in the case (1) and power line and heater (7) and roasting vessel (4) and controls the temperature of the roasting vessel (4) and driving shaft (11) one end and it is rotated in the at the same time rotated lacing plate (22): and rotary lever (24)

one side it is combined. As to the, vent is equipped in center while it is equipped in the case (1) center of inside and the cross section has U shape. The cover (6) is installed in order to open and close this in the vent (9) of the coating plate (5). A plurality of parts is driving shaft (11) installed at the roasting vessel (4):, consisting of the installed case (1), the coating plate (5), and the cover (6) the heater (7): is adherently equipped in the coating plate (5) external periphery of the roasting vessel (4) and heats up this and upper center of the roasting vessel (4). The chain (13) is connected to and installed at the driving shaft (11) and motor (12) and delivers the rotation power of the motor (12) to the driving shaft (11). The seaweed broiling apparatus which is made of the actuating piece (27), the solenoid switch (29), the timer (18), the interlocking lever (32), and the enclosing vessel (20) when being rotated over the constant angle. As to the, one side is advanced within the rotary range of the lacing plate (22). The solenoid switch (29) is connected to and installed at the actuating piece (27) with the wire (28) in order to circulate the actuating piece (27). The timer (18) permits the power in the solenoid switch (29) if the time which is connected to and installed at the power line and solenoid switch (29) and is set goes by. As to the, one end is hinge-coupled so that one end be rotatable, and the bottom of the rotary lever (24) is connected to the other side, and one end of the cover (6) is combined in the hinge part lateral edge. The enclosing vessel (20) is equipped in the vent (9) bottom side of the roasting vessel (4) and receives the salted dry fish dropped down earlier than at the roasting vessel (4) when the cover (6) is opened by the circulation of the interlocking lever (32).

Claim 2 :

The seaweed broiling apparatus of claim 1, wherein it is made of the linear type.

Claim 3 :

The seaweed broiling apparatus of claim 1, wherein the agitating vane (35) is made of the spatula shape.

Claim 4 :

The seaweed broiling apparatus of claim 1, wherein the agitating vane (45) is made of  $\cap$  person shape.

Claim 5 :

The seaweed broiling apparatus of claim 1, wherein the agitating vane (55) is made of waveform.



Drawings

Fig. 1

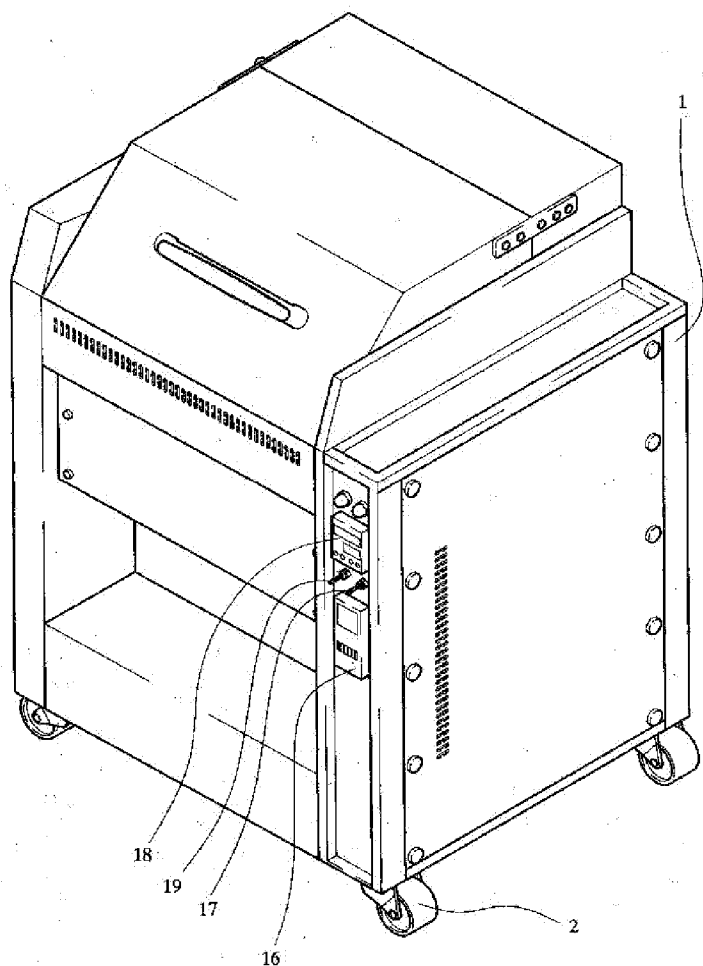


Fig. 2



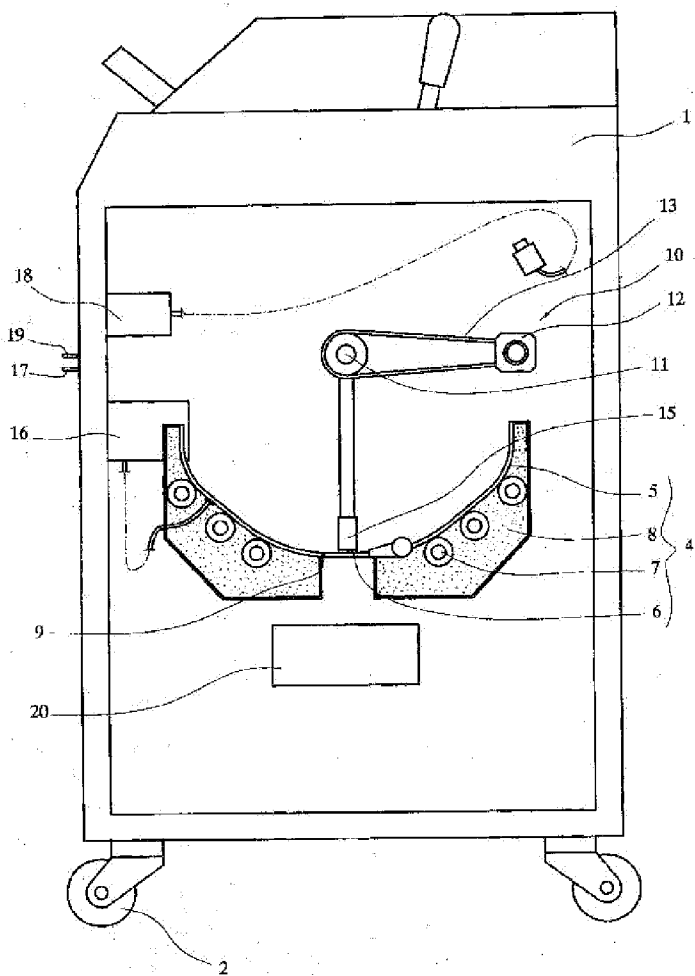


Fig. 3

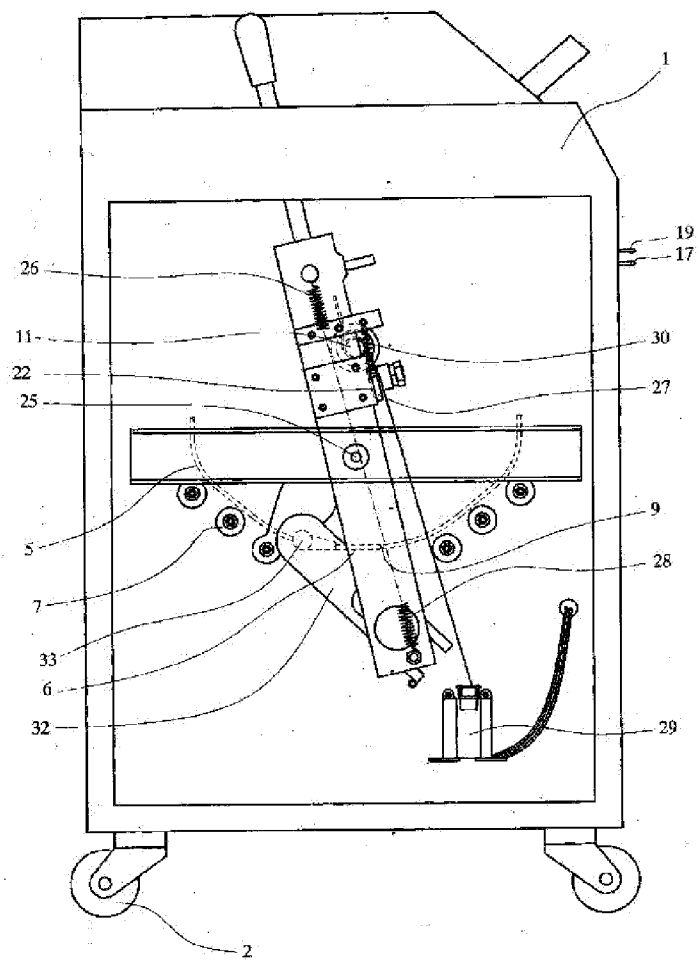


Fig. 4

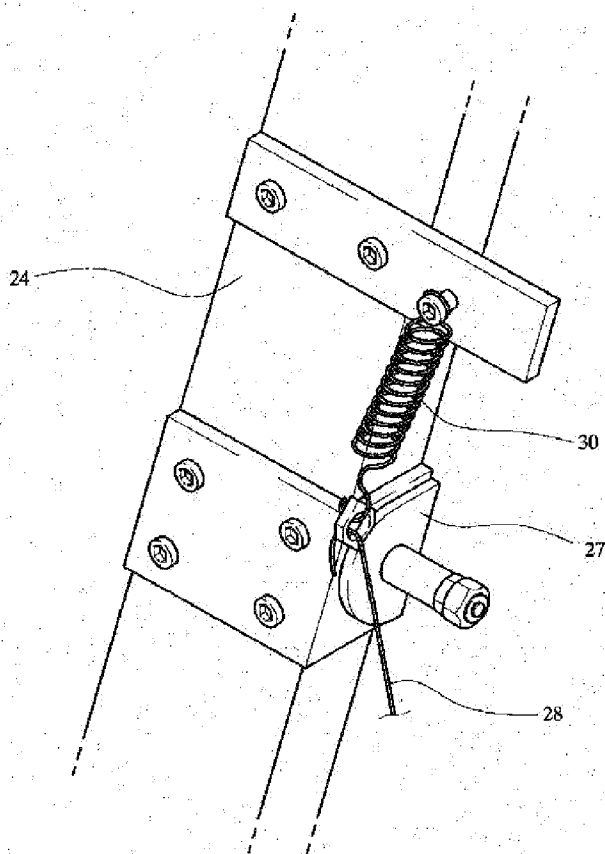


Fig. 5

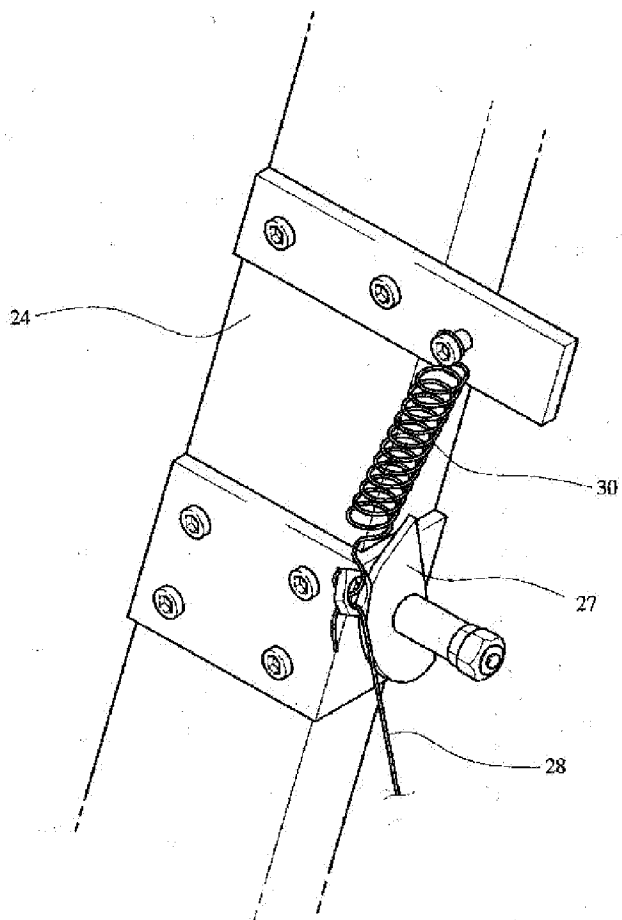


Fig. 6

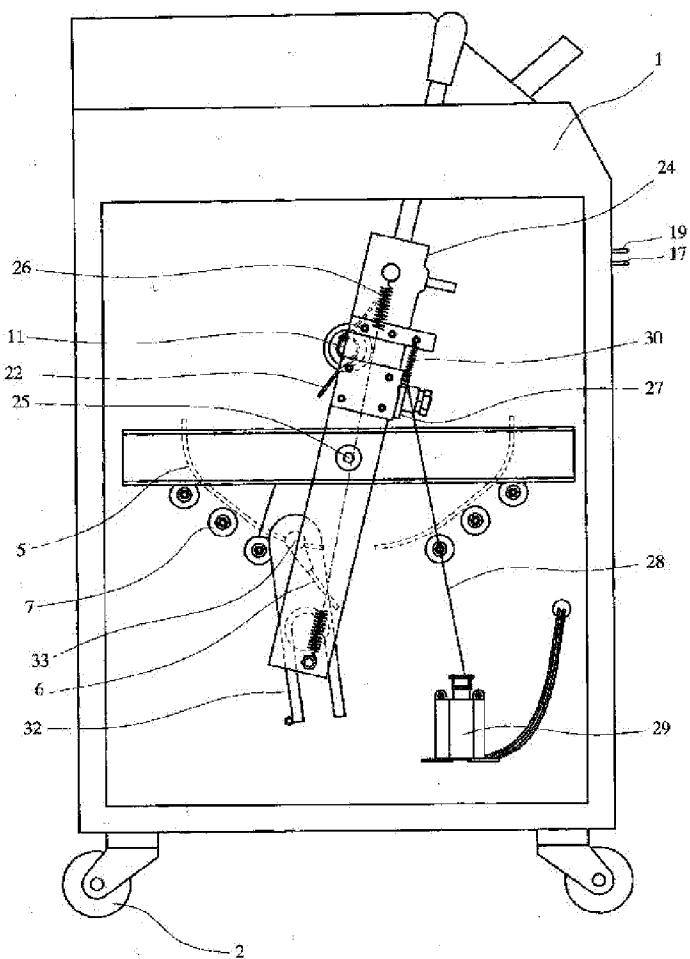


Fig. 7

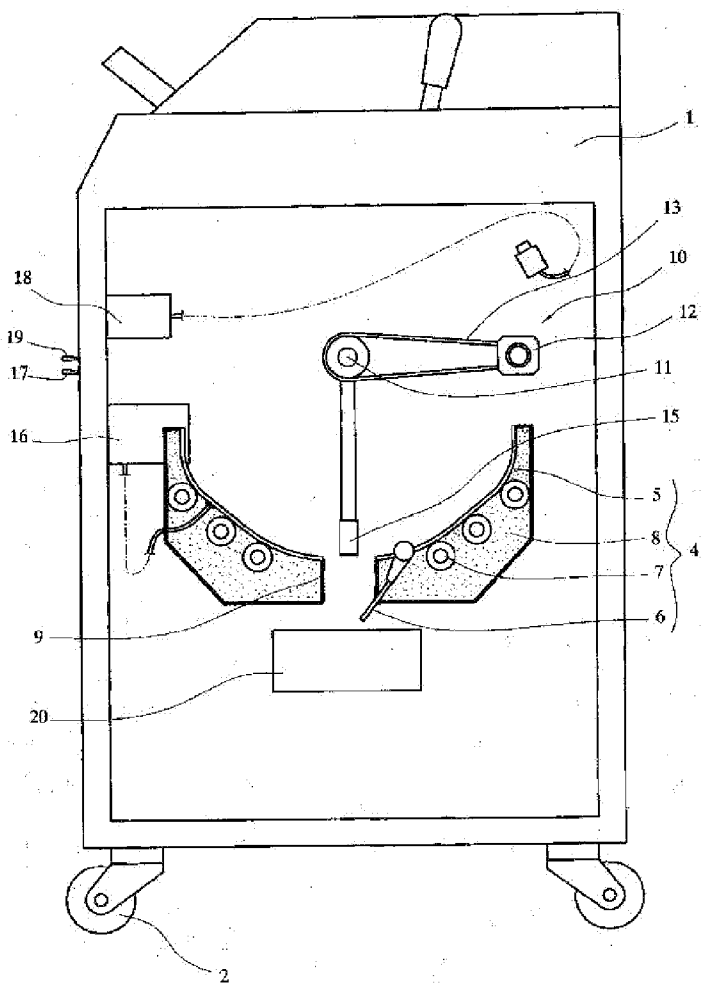


Fig. 8

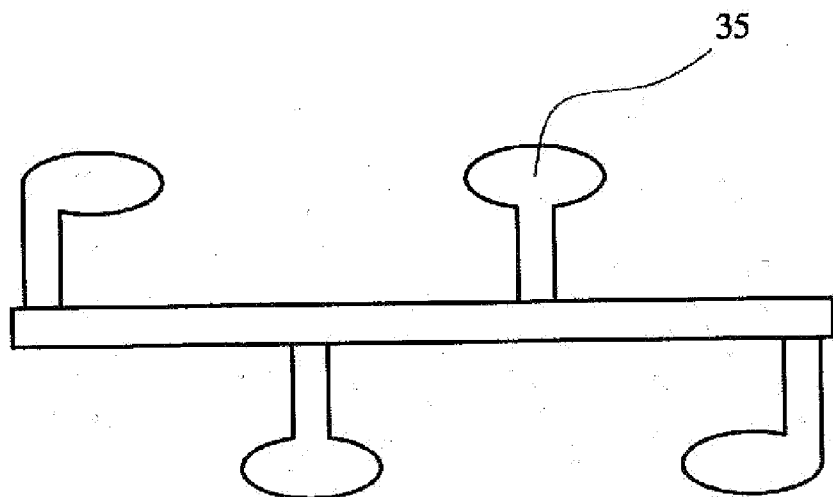


Fig. 9

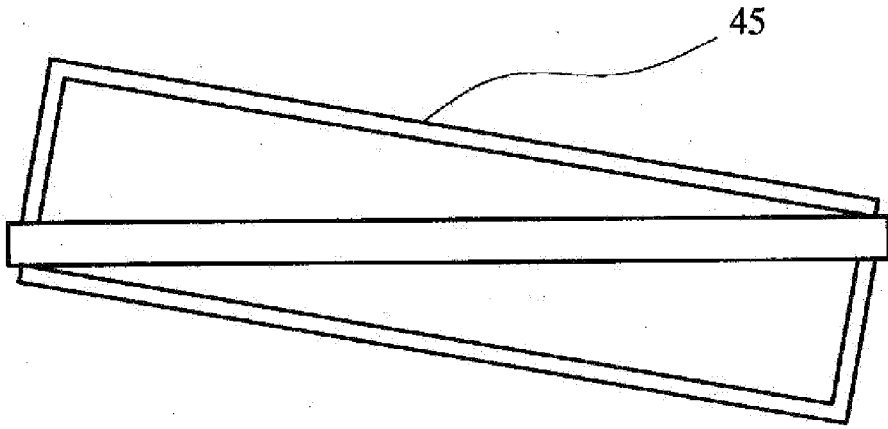


Fig. 10



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